

## Eastern Region Energy-Water Summary Overview for Group A

Problems	Needs	Solutions
ENERGY SUPPLY		
Thermal Cooling	Improve water use efficiency Maximize energy use per gallon Use lower water quality Reduce water through disperse generation Use water heat to reduce cooling	Technology Adoption Involve all users, including equipment suppliers Provide technology demonstration Use Energy Technology Verification model
Hydropower	Build water allocation models (forecast operations) Evaluate change in water flows as function of climate variability Monitor network to supply data needs	Evaluate climate change impacts (use sensitivity analysis, insurance industry connections for risk management approach)
Population Growth	Sustate model projections Models of building use like DOE-2	Pricing mechanisms and signals for water and electricity production to match population increase Low income support Feedback response for price signals Value of reducing peak in water use Benchmarking tools and value analysis
Problems	Needs	Solutions
WATER SUPPLY		
Carbon Sequestration	Impact of sequestration Reinjection impact on groundwater  Water needs (quality, quantity, approp. Locations)	Data and model evaluation. This should include: water quality, flow, and depth. Infrastructure to handle GIS type data On-going data sharing; model to determine data needs. Clearing house to share data
In-stream use	Metrics to value different uses Knowledge of impacts of climate variability	Data to quantify in-stream & seasonal use Upgrade, coordinate in-stream requirements

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	Models for decision support	Management of in-stream uses (real-time data)
Problems	Needs	Solutions
WATER SUPPLY (cont)		
Aging Infrastructure	Asset management approach	Funding mechanisms
	Quantify water and energy impacts of leaking pipes. Include infiltration info, waste treatment requirements	Leak detection - water loss audit
Water Laws	Regional/watershed policies instead of state laws National water policy on selected issues Improved water laws on interstate issues  Compile existing water laws (comparative analysis) National Water Commission Unified forum for addressing water/energy needs Adaptive management approach	Establish definitive water rights State the ABSOLUTE requirements Track original purpose of laws vs new purposes

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